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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/695,869 | 10/26/2000 | Taichi Shino | 2000 1452A | 2975 |

7590

03/24/2005

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2033 K Street NW Suite 800
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EXAMINER

NGUYEN, CHANH DUY

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2675

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/695,869 | SHINO ET AL. | |
| | Examiner | Art Unit | |
| | Chanh Nguyen | 2675 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16 and 21-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16 and 21-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed on December 13, 2004 has been entered and considered by examiner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 16 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanazawa et al (U.S. Patent No. 6,288,692) in view of Shino et al (U.S. Patent No. 6,320,326 B1), and further in view of Yamada (U.S. Patent No. 6,275,203).

As to claim 16, Kanazawa discloses an alternate current plasma display panel including a first insulating substrate and second substrate (i.e., front glass substrate and rear glass substrate) being transparent and disposed facing each other to form a discharge space. Kanazawa teaches first and second of display electrodes (first display electrode: Y1, first X0 or 520 and second display electrode: Y2, second X0) disposed over the first insulating substrate (front glass), each display electrodes including a scan electrode (Y1, Y2) and a sustain electrode (52) and arranged in rows adjacent to each other, sustaining (55) discharge being generated between the scan

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electrode (Y1) and sustain electrode (Xo) of each the first and second display electrodes ((Y1, first Xo and Y2, second Xo); see Figures 13 and 14.

Kanazawa teaches a plurality of data electrodes (53) disposed over the second insulating substrate (rear glass substrate) and being disposed perpendicular to the first and second display electrodes (Y1, first Xo and Y2, second Xo), discharge cells (55) being provided at intersection of the data electrodes (53) and the first and second display electrodes (Y1, first Xo and Y2, second Xo); see Figures 13 and 14.

Kanazawa teaches well-known Figures 2-3 having a plurality of phosphors (27) placed along the data electrode and a dielectric layer (24) covering the display electrode as recite in claim. Kanazawa teaches a barrier (58) disposed on the dielectric layer (i.e. dielectric layer 24 referred to Figures 2-3) the barrier extending longitudinally approximately parallel with the display electrodes (51, 52).

The only thing different between Kanazawa and the claim 16 is that Kanazawa does not teach one or more conductor being adjacent to a respective one of the first and second display electrodes, each of the conductors being spaced from a scan electrode and the sustain electrode of a respective one of the first and second display electrodes, and one of said conductors being electrically connected to the sustain electrode of the first display electrode; wherein said conductor are arranged so that when a pulse voltage is applied to the display electrode, current run through the conductors in a reverse direction to a current running through the display electrodes.

Shino teaches the same way as applicant's claimed device. That is Shino teaches well known feature of one or more conductors (e.g., SUSi-1, a) being adjacent

a respective one of the first and second display electrodes (e.g., SUSi-1, b). It is noted that the first display electrodes in Shino includes scan electrode (SCNi-1,a) and sustain electrode (SUSi-1, b), as well as the second display electrodes in Shino includes scan electrode (SCNi) and sustain electrode (SUSi, a). Shino teaches each of the conductors (e.g., SUSi-1,a) being spaced from a scan electrode (e.g., SCNi-1, a) and the sustain electrode (SUSi-1,b) of a respective one of the first and second display electrodes.

Shino teaches each of the conductors (SUSi-1,a) connected to the sustain electrode (SUSi-1,b) of a respective the first display electrodes (e.g., see Figure 11); wherein said conductor are arranged so that when a pulse voltage is applied to the display electrode, current run through the conductors in a reverse direction to a current running through the display electrodes (i.e. current of conductor SUSi-1,b flows from right to left whereas current of display electrode SUSi-1, a and flow from left to right); see Figure 11. It would have been obvious that Shino teaches preventing a discharge between the one of the conductor (SUSi-1, a) and the scan electrode of the second display electrode (SCNi, a) since Shino teaches the distance between the one of the conductors (SUSi-1,a) and the scan electrode of the second display electrode (SCNi,a) is longer than a distance between the scan electrode of the first display electrode (SCNi-1,a) and the sustain electrode of the first display electrode (SUSi-1,b) as the same way as applicant disclose claimed device. Therefore, it would have been obvious to one of ordinary skill in the art at the invention was made to have added a conductor (SUSi-1, a) as taught by Shino with display data of Kanazawa so that an

electromagnetic noise generated in the electrodes can be canceled by another (see column 12, lines 23-41 of Shino).

Kanazawa and Shino discloses an alternate current plasma display panel as recited in claim 1 with exception of describing the limitation "reverse of a polarity". Yamada teaches the voltages applied to the scan electrodes and sustain electrodes being opposite polarity; see figures 6, 19-20 and column 10, lines 15-60. Since one of the conductors of Shino physically connects to scanning line . Thus, at least one of the conductor as the same polarity as the scanning conductor which is opposite polarity of the sustain electrode as modified by Yamada. Furthermore, Shino even suggests the limitation "reverse polarity" as recited in the claim. For example, Shino teaches that "wherein current flow through a capacitance between a pair of scan and sustain electrodes and a pairs of scan and sustain electrodes in neighboring row so that an electromagnetic noise generated from the current counteracts by itself" (see column 19, lines 5-10). This also reads on the limitation "said conductors are operable to generate an electromagnetic wave having a polarity that is reverse of a polarity of an electromagnetic wave generated by a current running through a respective one of said display electrodes" as recited in claim 16 of this application.

Therefore, it would have been obvious to one of ordinary skill in the art at the invention was made to have used the voltages applied to scan and sustain electrodes with opposite polarity as taught by Yamada to the driving circuit of Kanazawa as modified by Shino so that an electromagnetic noise generated in the electrodes can be canceled by another .

As to claim,21, Figure 4 of Shino clearly teaches the claimed "reverse order" as recited in the claim.

As to claim 22, Kanazawa clearly teaches the barrier (58) being disposed between the first and second display electrodes (52).

As to claim 23, photo-absortive material barrier is known in the art, even taught by Kanazawa so as to prevent the light from leak.

Response to Arguments

3. Applicant's arguments with respect to claims 16, 21 and 23 have been considered but are moot in view of the new ground(s) of rejection.

In view of amendment, the obviousness type double patenting rejection has been withdrawn from the rejection, and the electrode (SUSi-1,a) is interpreted as the conductor as recited in the claim. The conductor (SUSi-1,a) is electrically connected to the sustain electrode (SUSi-1,b) of the first display electrode.

Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chanh Nguyen whose telephone number is (571) 272-7772. The examiner can normally be reached on Monday- Friday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



C. Nguyen
March 14, 2004



Chanh Nguyen
Primary Examiner
Art Unit 2675